What is Claimed Is:

1. A pharmaceutical composition for the treatment or amelioration of central nervous system dependent conditions comprising (i) an effective amount of agmatine, an agmatine analog, or a pharmaceutically acceptable salt thereof and (ii) a pharmaceutically acceptable carrier.

2. The pharmaceutical composition according to claim 1 comprising a dose of about 0.1 mg/kg to about 300 mg/kg of agmatine, an agmatine analog, or a pharmaceutically acceptable salt thereof.

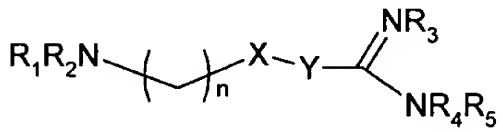
3. The pharmaceutical composition according to claim 1 comprising a dose of about 1 mg/kg to about 50 mg/kg of agmatine, or a pharmaceutically acceptable salt thereof.

4. The pharmaceutical composition according to claim 2 comprising saline as the pharmaceutical carrier

5. A method of treating, ameliorating, or preventing epilepsy, seizure, or electroconvulsive disorders in a subject in need thereof, the method comprising:

administering a pharmaceutical composition comprising an effective amount of agmatine, an agmatine analog, or a pharmaceutically acceptable salt thereof to treat, reduce, or prevent the disorder in the subject.

6. A method according to claim 5, wherein the agmatine or agmatine analog has the following formula:



wherein n is 0 to about 10;

R_1, R_2, R_3, R_4, and R_5, are each independently, or any combination thereof: hydrogen, hydroxy, substituted or unsubstituted C_{1-10} alkyl, substituted or unsubstituted C_{3-8} cycloalkyl, substituted or unsubstituted arylalkyl (comprising $Ar-(CH_2)_m$; where Ar is aromatic and m is 0 to about 10) substituted or unsubstituted C_{1-10} alkoxyl, substituted or unsubstituted C_{1-10} acyl, halogeno, amido, phenyl, thio, amino; and

X and Y are each independently: O, NH, CH_2, CF_2, Se, C=O, C=N, C=S, or S; or X-Y together is HC=CH, C≡C, N=N, N=CH, CH=N, or a saturated or unsaturated ring.

7. A method according to claim 5, wherein the pharmaceutical composition comprises agmatine or its pharmaceutically acceptable salt and a pharmaceutically acceptable carrier.

8. A method according to claim 5, wherein the composition is administered to a human subject in a dose of about 0.1 to about 500 mg of the agmatine or agmatine analog per kilogram of the human subject's weight.

9. A method according to claim 8, wherein the composition is administered in a dose of about 0.1 to about 50 mg/kg per day indefinitely or until symptoms associate with the condition or disorder cease.

10. A method of treating the occurrence of epilepsy, seizure or electroconvulsive disorders in a human comprising the step of administering an effective amount of agmatine, an agmatine analog or a pharmaceutically acceptable salt thereof to a human in need thereof and preventing or reducing the disorder.

11. A method according to claim 10, comprising preventing or reducing seizure activity as the disorder.

12. A method according to claim 10, comprising preventing or reducing epileptic activity as the disorder.

13. A method of treating or preventing epilepsy seizure or electroconvulsive disorders in a human comprising:

identifying a human subject in need of said treatment or prevention; and

administering an effective amount of agmatine, an agmatine analog or a pharmaceutically acceptable salt thereof to the human subject.

14. A method according to claim 13, comprising identifying a human subject in need of said treatment by analyzing an electroencephalogram taken of the human subject.

15. A method according to claim 13, comprising identifying a human subject in need of said treatment by observing one or more features associated with a seizure.

16. A method according to claim 13, comprising administering the effective amount of agmatine, an agmatine analog or a pharmaceutically acceptable salt thereof to the human subject indefinitely or until the symptoms or features associate with the disorder cease.

17. A method according to claim 13, comprising preventing or reducing epileptic activity as the disorder

18. A method according to claim 13, comprising administering the effective amount of agmatine, an agmatine analog or a pharmaceutically acceptable salt thereof as a pharmaceutical composition.

19. A method according to claim 13, comprising administering the effective amount of agmatine, an agmatine analog or a pharmaceutically acceptable salt thereof parenterally.

20. A method according to claim 13, comprising administering the effective amount of agmatine, an agmatine analog or a pharmaceutically acceptable salt thereof orally.